

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WISCONSIN

THE FIRST YEARS, INC. and
LEARNING CURVE BRANDS, INC.,

Plaintiffs,

v.

MUNCHKIN, INC.,

Defendant.

OPINION and ORDER

07-cv-558-bbc

In this civil case for patent infringement, plaintiffs The First Years, Inc. and Learning Curve Brands, Inc. contend that defendant Munchkin, Inc. is infringing two of their patents, U.S. Patent No. 6,976,604 (the '604 patent) and U.S. Patent No. 7,185,784 (the '784 patent). Now before the court are the parties' cross motions for summary judgment on the issues of infringement, invalidity and unenforceability; several preliminary motions to strike certain evidence; and related motions for leave to file additional briefs.

The issues will be decided as follows. First, as for the preliminary motions:

1. Defendant's motion to strike certain color photographs in the declaration of Tim A. Osswald will be denied;

2. Plaintiffs' motions to strike the declaration of William J. Gartner and portions of the declarations of John L. Knoble and Kevin Johnson and their motions for leave to file reply briefs on the motions to strike will be denied;
3. Plaintiffs' motion to strike portions of the rebuttal report of Timothy A. Shedd will be granted in part: ¶¶ 19-24 will be excluded from evidence and ¶¶ 7-15 will be excluded from evidence for all purposes except those related to infringement;
4. Plaintiffs' unopposed motion to file a supplemental brief in opposition to defendant's motion for partial summary judgment will be granted.

As to the dispositive motions:

1. Plaintiffs' motion for partial summary judgment will be granted as to their claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 32, 36, 48, 55, 57, 61, 65, 67, 73 and 77 of the '604 patent and claims 1, 7 and 9 of the '784 patent and defendant's motion for partial summary judgment of noninfringement will be granted as to all other claims of infringement asserted by plaintiffs;
2. Defendant's motion for partial summary judgment will be granted as to its counterclaims for declaratory judgment that claims 31, 56 and 78 of the '604 patent are invalid as indefinite and that claims 32, 54, 57, 61, 67, 73 and 79

of the '604 patent are invalid as obvious; plaintiffs' motion for summary judgment of validity will be granted as to all other invalidity counterclaims asserted by defendant;

3. Plaintiffs' motion for summary judgment will be granted as to defendant's claims that plaintiffs engaged in inequitable conduct by failing to disclose prior art and burying the Gartner patent during prosecution of the '604 patent and by failing to disclose prior art during prosecution of the '784 patent and denied as to defendant's claim that plaintiffs engaged in inequitable conduct by failing to disclose certain scientific principles during prosecution of the '604 patent.

These rulings leave two issues for trial: (1) damages on plaintiffs' claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 36 and 65 of the '604 patent and on plaintiffs' claims 1, 7 and 9 of the '784 patent, which will be decided by the jury; and (2) defendant's claim that plaintiffs engaged in inequitable conduct by failing to disclose certain scientific principles during prosecution of the '604 patent, which will be decided by the court.

I. MOTIONS TO STRIKE

Before turning to the motions for summary judgment, I consider the parties' motions

to strike and related motions for leave to file reply briefs in support of the motions to strike. First, although the parties label each motion a motion to “strike,” the motions are properly construed as motions for sanctions pursuant to Fed. R. Civ. P. 37(c). In each instance, the moving party seeks to exclude evidence on the ground that it was not timely disclosed as required by Rule 26(a) or (e). As Rule 37 explains,

If a party fails to provide information or identify a witness as required by Rule 26(a) or (e), the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless.

Defendant has filed one motion to strike (dkt. #126), seeking to exclude color photographs used in the declaration of Tim A. Osswald (dkt. #73). Plaintiffs have filed four separate motions to strike (dkt. ##56, 107, 85, 90) the following materials: (a) portions of Timothy A. Shedd’s rebuttal report (dkt. ##63-3, 63-4, 63-5); (b) portions of the declaration of William J. Gartner (dkt. #60); (c) portions of the third declaration of John L. Knoble (dkt. #64); and (d) portions of the declaration of Kevin Johnson (dkt. #61). In addition, they have filed motions for leave to file unsolicited reply briefs (dkt. ##91 and 124) in support of their motions to strike the Shedd rebuttal report and the Gartner declaration, together with an unopposed motion for leave to file a supplemental response brief in opposition to defendant’s motion for summary judgment to address statements made in the Gartner declaration (dkt. #145).

A. Defendant's Motion to Strike Color Photographs from the Declaration of Tim Osswald

Defendant contends that plaintiffs failed to disclose in Osswald's expert report the color images he later used in his declaration. Instead, Osswald's expert report included only low-resolution black-and-white photographs. Defendant relies on United States v. Katz, 178 F.3d 368 (5th Cir. 1999), for its position that disclosing black-and-white photographs while withholding color photographs may be grounds for excluding the color photographs. In Katz, the defendant was indicted for receiving child pornography in the mail after federal agents delivered a computer disk containing eleven graphic image files depicting child pornography. Id. at 369. The prosecution disclosed black-and-white versions of the images on the disc during discovery, but provided the color images on the eve of trial. Id. at 370. The court excluded the color versions of the images, concluding that the prosecution's failure to disclose the images during discovery in the format it intended to produce them at trial was either an attempt to "sandbag" the defense or highly unprofessional conduct. Id. at 371-72.

As in Katz, plaintiffs waited until the last minute to show their higher quality photographs. I agree with defendant that the difference between the color and black-and-white images is striking. However, there is one major difference between the circumstances of this case and those in Katz. In Katz, the potential for prejudice to the defendant was high because the disc had never been in defendant's possession so that "the defendant had no information about the contents of the images other than what he learned during discovery."

Id. at 371. In this case, the photographs are of a cross-section of *defendant's* cups. In no way has defendant been prejudiced by having the fuzzier photographs of plaintiffs' work until now. Aside from the fact that defendant could have sought clearer photographs, it certainly could have (and probably should have) performed its own cross-section analysis of the allegedly infringing products. It is worth noting that defendant does not suggest that the color photographs makes it clear that plaintiff's cross-section misrepresents defendant's products or otherwise shows errors in testing not visible in the earlier photographs. Because defendant suffered no prejudice, the failure is harmless under Rule 37(c) and no sanction is warranted. Defendant's motion to strike will be denied.

B. Motion to Strike Portions of Timothy A. Shedd's Rebuttal Report and Motion for
Leave to File Reply Brief

Plaintiffs' first motion to strike relates to defendant's expert's rebuttal report, which plaintiffs argue addresses new matters that should have been the subject of the first round of expert reports. As an initial matter, plaintiffs' motion for leave to file a reply will be denied. Although plaintiffs say in their proposed reply brief that they are addressing "factual issues" raised in defendant's opposition brief, they do no more than dispute characterizations made by defendant.

This court's preliminary pretrial conference order, dkt. #5, issued on November 15,

2007, explained to the parties that:

[a]ll disclosures mandated by this paragraph must comply with the requirements of Rule 26(a)(2)(A), (B) and (C). There shall be no third round of rebuttal expert reports. Supplementation pursuant to Rule 26(e)(1) is limited to matters raised in an expert's first report, must be in writing and must be served not later than five calendar days before the expert's deposition, or before the general discovery cutoff if no one deposes the expert. . . . Failure to comply with these deadlines and procedures could result in the court striking the testimony of a party's experts pursuant to Rule 37. The parties may modify these deadlines and procedures only by unanimous agreement or by court order.

Dkt. #5 at 2-3. By stipulation of the parties, initial expert reports were due April 24, 2008 and responsive reports were due May 30, 2008. Responsive reports are limited to "evidence intended solely to contradict or rebut evidence on the same subject matter identified by another party" in an expert report. Fed. R. Civ. P. 26(a)(2)(C)(ii).

After plaintiffs submitted timely expert reports on infringement matters, defendant submitted Shedd's rebuttal report, purportedly to rebut plaintiffs' expert reports on issues related to infringement. Plaintiffs take issue with two sections of Shedd's rebuttal report. In ¶¶ 7-15 of his report, Shedd discusses the scientific principles behind the tests performed by plaintiffs' expert to prove infringement, concluding that the increased leakage of the cups is a function of a decrease in pressure as liquid leaks out of the cups. In ¶¶ 19-24 of his report, Shedd discusses tests he has performed on articles of prior art.

Plaintiffs point out that defendant uses ¶¶ 7-15 of Shedd's report primarily to bolster

its invalidity arguments; however, the discussion of the scientific principles underlying plaintiffs' testing of cups is not strictly an invalidity discussion. The question whether leakage in a cup is a function of pressure may also be relevant to infringement insofar as it addresses whether the cups holes are of a "size *selected*" to meet the three-drop test. To the extent the scientific principles discussed in Shedd's rebuttal report address issues of infringement, they were a timely responsive report to plaintiffs' infringement report and defendant should not be excluded from using this evidence in the infringement context. As for its use in the context of invalidity, however, I agree with plaintiffs: defendant should have submitted Shedd's testimony describing the scientific principles in its initial expert report if it wanted to use this evidence to establish invalidity. It did not.

As for ¶¶ 19-24, the testing of prior art is irrelevant to the issue of infringement. Defendant attempts to argue that these paragraphs serve as rebuttal of plaintiffs' expert reports because in them Osswald stated that "any cup with the same features" as defendant's cup infringes those patents. However, plaintiffs are not asserting infringement of "any cup," just defendant's. Moreover, defendant's delayed attempt to prove their case for invalidity is not harmless to plaintiffs because they had no opportunity to rebut Shedd's statements.

Defendant argues next that the questioned portions of the Shedd report may be treated as "supplementation" under Fed. R. Civ. P. 26(e)(1), which states that:

A party who has made a [Rule 26(a)] disclosure . . . must supplement, or

correct its disclosure or response (A) in a timely manner if the party learns that in some material respect disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing.

Defendant contends that the issues raised in ¶¶ 7-15 and 19-24 relate to “matters raised” in Shedd’s first expert report and were submitted within the time requirements that this court has set for Rule 26(e) “supplementation” of expert reports. In particular, defendant points to Shedd’s statement in his original report that the Gartner patent anticipates the vacuum leak test given the hole size, as well as his conclusory statements that “the Gartner lid that I have tested would anticipate this limitation” and “Claim 1 is also fully satisfied by the Keroppi Toddler cup.” Defendant adds that Shedd performed the three-drop test (a separate test related to leakage disclosed as a separate limitation to claim 1).

However, Shedd’s rebuttal report reaches far beyond the statements found in his initial report; it describes actual vacuum leak testing on those cups. His first report had been limited to conclusory statements, other tests and deductions based on hole size. He never discussed vacuum leak test results of any of the prior art cups. Indeed, this is likely why defendant saw the need to add these paragraphs to Shedd’s rebuttal opinion. (In addition, defendant filed a “letter” on September 5, 2008, to “point out . . . an additional consideration” related to the timing of Shedd’s expert reports in relation to my ruling on the term “fresh water.” Defendant is simply trying to supplement its opposition brief. That

motion will be denied; to the extent this “additional consideration” was relevant, it has been waived.) Paragraphs 7-15 and 19-24 of Shedd’s rebuttal report will not be accepted as “supplementation” to his first report.

Plaintiffs’ motion to “strike” portions of Shedd’s rebuttal report will be granted in part: ¶¶ 19-24 will be excluded from evidence and ¶¶ 7-15 will be excluded from evidence for all purposes except as related to whether defendant’s products infringe the ‘604 and ‘784 patents.

C. Plaintiffs’ Motions to Strike the Declaration of William J. Gartner, File Reply Brief and File Supplemental Response Brief to Summary Judgment Motion

Plaintiffs have moved to strike the declaration of William J. Gartner on the ground that it and its supporting documents were not disclosed in a timely manner, as shown by the February signature date on the declaration. In the alternative, plaintiffs request an opportunity to depose Gartner and file a supplemental response. In addition, plaintiffs ask for costs. (Plaintiffs have also filed a motion for leave to file a reply brief in support of the motion to strike. That motion will be denied.)

Defendant argues that the affidavit was signed much later than February but showed a February date resulting from a drafting error. In addition, in the time since plaintiffs filed this motion, they have been allowed to depose Gartner and have filed an unopposed motion

for leave to file a supplemental response with the proposed response attached.

I conclude that the proper resolution to this dispute is to grant plaintiffs' motion to file a supplemental response, which has been received, and deny their motions to strike the declaration and for costs. Plaintiffs cannot say they are prejudiced by the Gartner declaration, having had the opportunity to depose him and object. As for costs, I am persuaded that the source of this dispute is nothing more than a harmless drafting error. Because this dispute could have been resolved without dragging the court into it, plaintiffs are not entitled to costs.

D. Plaintiffs' Motion to Strike Portions of the Third Declaration of John L. Knoble

Plaintiffs move to strike portions of the third declaration of John L. Knoble as an attempt to offer "expert testimony" and seek to disqualify Knoble on the ground that his declaration testimony makes him an expert and fact witness. All but two of the challenged paragraphs relate to Knoble's statements about the two patents in suit and a European patent application. The other two paragraphs involve Knoble's role in a chain of custody for a lid he received from Gartner and gave to his expert.

I do not agree with plaintiffs that Knoble is attempting to submit "expert" testimony. For the most part, the challenged paragraphs are not facts at all, but simply characterizations of the patent and the patent application. Because these paragraphs are inadmissible anyway,

there is no reason to strike them. As for the chain of custody testimony, this is admissible lay testimony not subject to the expert report requirements. Plaintiffs' counsel is encouraged not to waste the court's time with motions to strike when objections about the admissibility of evidence will suffice. Plaintiffs' motion to strike ¶¶ 2, 3, 5, 6, 8, 10, 11 and 13-39 of the third declaration of Knoble will be denied.

Once this conclusion is reached, plaintiffs' questionable motion to disqualify Knoble (defendant's lead counsel) becomes completely unnecessary. Knoble will not be disqualified on the ground that he may have relevant testimony related to the chain of custody of the Gartner lid. Although, as I conclude below, the Gartner lid and its chain of custody will not be relevant at trial, I would deny plaintiffs' motion to disqualify Knoble in any event.

E. Plaintiffs' Motion to Strike Portions of the Declaration of Kevin Johnson

Plaintiffs characterize the declaration of Kevin Johnson as another attempt to submit late expert testimony. However, plaintiffs' only objections are to Johnson's construction of claim terms and statements made "upon information and belief." Neither of these things is admissible expert testimony anyway: the construction of claim terms is a legal conclusion for the court, Phillips v. AWH Corp., 415 F.3d 1303, 1318 (Fed. Cir. 2005) ("conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court"), and statements based on "information and belief" do not constitute expert

testimony, Fed. R. Ev. 702 (expert testimony is “scientific, technical, or other specialized knowledge” and must be “based upon sufficient facts or data.”). Thus, once again, plaintiff’s motion to strike will be denied. Whether the underlying facts retain some scrap of admissibility or relevance will be addressed in the undisputed facts section below.

II. SUMMARY JUDGMENT MOTIONS

From the facts proposed by the parties, I find that the following are both undisputed and material.

UNDISPUTED FACTS

A. Parties

Plaintiffs The First Years Inc. and Learning Curve Brands, Inc. are in the business of making and selling feeding products for newborns, infants and toddlers, among other things. Plaintiff The First Years is the assignee and owner of the patents involved in this lawsuit and plaintiff Learning Curve is the exclusive licensee of the patents involved in this lawsuit. Because Learning Curve had no involvement in the prosecution of the patents at issue, all further references to plaintiff will be to plaintiff The First Years. Defendant is a Delaware corporation that sells children’s drinking cups, among other things.

B. The ‘604 Patent

The Patent and Trademark Office issued the ‘604 patent on December 20, 2005.

The '604 patent is entitled "Restricting Flow in Drinking Containers" and relates to children's disposable spill-resistant "sippy cups." The patent is directed to sippy cups having drinking spouts with holes of a particular size and design so as to prevent leakage or spills without the use of a valve, while providing an acceptably high flow rate. Certain claims disclose leakage and flow rate tests, including a "three-drop" test limiting the claims to leakage of less than three drops of fresh water over time in certain conditions.

1. Prosecution history

The application for the '604 patent was filed on October 5, 2001. Plaintiff first submitted an Information Disclosure Statement containing 26 references and later submitted another Information Disclosure Statement listing 12 additional references, including U.S. Pat. No. 4,756,440 to Gartner and an International Search Report for a foreign patent application that identified the Gartner patent as an "X" reference (meaning that the claimed invention "cannot be considered novel when the document is taken alone"). The foreign patent application was ultimately abandoned after receiving a rejection that was based on the Gartner Patent. Plaintiff filed these submissions before the Patent Office mailed its first Office Action on the merits of the invention. Plaintiff never disclosed any of the following prior art to the examiner during prosecution of the patent: Hasbro cups with a snap-on lid and without a valve, plaintiff's Tumble Mates cup, or cups made by Gerber,

Munchkin, Evenflo and Playtex with removable valves.

As the entity that prosecuted the patents, plaintiff was aware of the duties of disclosure and candor to the PTO at the time of the prosecution of the patents-in-suit, as was David Medeiros, one of the inventors of the '604 patent. Medeiros was familiar with the three-drop test of claim 1 of the '604 patent and how to perform it or its equivalence, including the variation of the test performed for the patent examiner during prosecution.

Before submitting the patent application, plaintiffs performed three-drop tests on cups, punctured a hole in the bottom of the cup and tested them again. The tester concluded that "[i]ntroducing vent hole dramatically increases leak potential." As plaintiff's witness explained, this is because the presence of a vent hole eliminates the effect of a vacuum on the three-drop test, leaving only the effect of surface tension.

At an interview with the examiner of the application for the '604 patent, the applicants demonstrated a sort of "three-drop test" for the examiner by filling a patented cup about half-full of water and holding it upside down. Nonetheless, the examiner found claim 1 to be obvious in light of U.S. Pat. No. 5,538,156 to Proshan.

On appeal to the Board of Patent Appeals and Interferences, plaintiff argued that the examiner had erred, adding that "[t]here is certainly no suggestion [in Proshan] of sizing the holes to employ surface tension effects to limit leakage." File History, dkt. #27, at FY000285. The applicants emphasized the importance of the surface tension effect:

As a first point, Applicants respectfully disagree, as a factual matter, with the Examiner's conclusion that, to one of ordinary skill in this art, it would have been an obvious matter of design choice to size the holes in the Proshan lid as claimed. As discussed in the Specification and at an Interview with the Examiner, it is generally understood that decreasing hole size, while providing the advantage of lower leakage rate, negatively impacts drinking flow rate. Applicants were apparently the first to realize that hole size could be reduced, even to such a small size that surface tension effects of the fluid itself could start to have a significant impact on leakage control, while the negative impact of lowered drink flow rate could be offset by increasing the number of holes. Thus, it is this insight, recited quite clearly in claim 1, that low quasi-static leakage and high suction flow could be simultaneously achieved in a drinking spout with unrestricted holes, that breathes life into the rejected claim.

. . . .

. . . . But here Applicants are not claiming a mere change of hole size to affect [sic] a mere proportional change in flow restriction, but a new configuration of features that together effect an improvement in flow and leakage properties under a new principle of operation, rather than by affecting [sic] a mere optimization. Thus, Applicants' claimed solution represents a difference in *kind*, rather than a difference in *degree*, of effect.

Id. at FY000287-89 (emphasis in original). The Board reversed the examiner's finding of obviousness, concluding that "Proshan does not meet the limitations . . . relating to the size and number of the unrestricted liquid dispensing holes" and is not obvious because it does not "contemplate the particular manner of solving this problem disclosed and claimed by the appellants" and is not therefore, an obvious matter of design choice. Id. at FY000338-40. The Board noted that the '604 patent's "underlying specification indicates that these limitations are essential in achieving the appellants' objective of providing a drinking spout having an acceptably high flow rate and low leak rate without the need for a valve." Id. at

FY000338.

Plaintiff never mentioned the importance of the vacuum effect on leakage during prosecution of the '604 patent.

2. Specification

The '604 patent specification describes the invention in terms of the effect of surface tension. The Abstract states that holes are “sized to resist leakage in the absence of suction, such as by the development of surface tension at the holes, and to allow flow when suction is applied.” Later, the specification states

Without intending to be limiting, we theorize that such small holes each sufficiently resist leakage because they are small enough to enable a meniscus of fluid to develop across the holes that holds back the static weight of the liquid in the cup due to surface tension in the meniscus until suction is applied to the spout.

'604 pat., col. 5, lns. 14-22. The combination of small holes and increased flow rate is described as follows:

The larger the number of holes, the smaller each individual hole may be formed, to a practical limit, to decrease the propensity of leakage while maintaining an acceptable suction flow rate.

Id., col. 8, lns. 9-12. The theory that surface tension plays a role in reducing leakage is described in greater detail in the context of a “three-drop test” for leakage:

FIG. 8 illustrates the formation of a stable fluid bulge 64 extending into hole

34a from its inner end, under static pressure "P" applied by the weight of the liquid in the cup when the cup is inverted. A fluid membrane at the free surface of the bulge carries a surface tension that resists the rupture of the fluid membrane and the undesired leakage of the fluid through the hole. The level of pressure "P" that can be resisted by such surface tension will be a function of the relative surface energies of both the fluid 66 and the lid material at the interface between the edge of the bulge 64 and membrane 54 (at 58, for instance). Resistance to leakage will also depend on fluid viscosity and lateral hole dimensions. We have found that, for many liquids commonly consumed by small children, such as fruit juices, water and whole milk, circular holes 34a of a diameter less than about 0.025 inch (0.64 millimeter) acceptably resist leakage under a quasi-static head of about two inches of these liquids with no suction applied to the spout. Preferably, the lid should not leak more than 3 drops of liquid over a 10 second interval, with two vertical inches of liquid over the holes and no suction applied, after being gently rotated to an inverted position at a rate of about 180 degrees per second.

Id., col. 7, lns. 19-40.

Nowhere in the specification is there discussion of the possibility that the formation of a vacuum could affect the results of the three-drop test or leakage in general. The specification describes only the formation of an unwanted vacuum in the context of drinking:

cup 10 is completely sealed with the exception of the drinking holes in the spout 20. In other words, no vent allows air to flow into the cup as the liquid is dispensed. An air tight seal is maintained between the groove of lid 12 and the rim of cup body 14, such that a slightly sub-atmospheric pressure will develop within the cup body during drinking . . . any substantial vacuum within the cup body will only tend to temporarily buckle the cup body wall.

Id., col. 8, lns. 13-28.

3. Claims

The '604 patent has 79 claims, of which claims 1, 32, 57 and 79 are independent. Claims 1 to 31 are directed to an embodiment of the invention for a drinking container having a main body and a removable lid, where the holes of the drinking spout of the removable lid are sized to

permit less than three drops of leakage of fresh water from the interior cavity through the holes over a 10 second interval under quasi-static conditions with the container inverted, a static head of 2.0 inches (51 millimeters) of fresh water at the inner ends of the holes, and no vacuum applied to the spout.

Claims 32 to 56 are directed to another embodiment of the invention for a drinking container having a main body and a removable lid, where the holes of the drinking spout of the removable lid have “a major lateral extent, perpendicular to a flow path along the hole, of less than about 0.025 inch (0.64 millimeter), and together form an aggregate flow path though the spout of an area of at least 0.35 square millimeter.”

Claims 57 to 78 are directed to a third embodiment for the lid itself. As in the previous embodiment, the holes in the extended spout of the lid have “a major lateral extent, perpendicular to a flow path along the hole, of less than about 0.025 inch (0.64 millimeter), and together form an aggregate flow path through the spout of an area of at least 0.35 square millimeter.”

Claim 79 is directed to a method of preventing spills from drinking containers for

children. The method includes filling a cup with a consumable liquid and securing a lid across the upper end of the cup, where the lid and holes are as described above in the claims 32 and 57.

4. Testing the science behind the '604 patent: surface tension and hole size

Defendant's expert, Timothy Shedd, performed "three-drop tests" on two modified cups to test the importance of surface tension and hole size on reducing leakage. First, Shedd removed the membrane from the lid of one of plaintiff's cups and inverted the cup three times. The first time the cup was inverted, there was an initial liquid loss before the leakage stabilized. When the cup was shaken, significant leaking occurred out of one side of the orifice as air bubbles entered the other side. The cup was righted and inverted again, after which time quasi-equilibrium conditions were re-established and leakage stopped. Leakage occurred after a rotational disturbance, but ended immediately after the disturbance stopped.

Second, Shedd performed the "three-drop" test on whole milk at approximately 50° F. (10° C). Whole milk has a surface tension of approximately 0.055 N/m, which is nearly 27% lower than that of pure water. Video of the test shows that with milk the cup actually takes quite a bit longer than with water before leakage from the cup stops and the "three-drop test" is satisfied. However, after about ten seconds of inversion, the leakage rate falls

below 3 drops in 10 seconds. After this point, even swirling the cup does not cause any more leakage.

Leakage of air into the cup signifies that the drinking container and fluids contained within it are not in a state of quasi-static conditions because the internal pressure of the drinking container is changing when air is leaking in. Thus, the leakage occurring at this time would not be counted as part of the “three-drop” test.

The Gartner lid, the Tumble Mates cup, the Karoppi cup and the First Years patented cup with the large hole cut-out each pass the three-drop test, regardless how full they are, because a vacuum forms in the cup when it stabilizes. Leakage from a sippy cup under quasi-static conditions depends more on the relative pressures inside and outside the container more than on hole size. Surface tension is not primarily responsible for the effect of the three-drop test.

5. Prior art

U.S. Pat. No. 4,756,440 to Gartner is directed to an anti-spill drinking cup lid that operates by flexing inwardly without the use of a vent hole. The Gartner patent teaches that the lid of the invention includes “a drinking spout formed in said cover and extending outwardly therefrom, said spout including in its outer tip a plurality of apertures in communication with the interior of the container.” The Gartner patent further teaches that

the holes should be within a range of about 0.02 inch to 0.04 inch in diameter.

According to Gartner, hole sizes smaller than the range identified “tend to place an impractical restriction on the ability to drink from the container,” and hole sizes larger than this range “permit increased spillage when the container is turned over.” Gartner's preferred diameter is “approximately” 0.03 inch.

The Gartner patent discloses a drinking container having a main body that defines an interior cavity that is accessible through an opening at an upper end of the main body. It further discloses a removable lid secured to the main body of drinking container at its upper end to cover the opening and, together with the main body, enclose the interior cavity to hold a liquid.

The lid described in the Gartner patent includes an extended drinking spout sized to be received within a human mouth and defining multiple unrestricted holes providing open hydraulic communication between exterior surfaces of the container and the interior cavity for dispensing liquid disposed proximate inner ends of the holes in response to a “light mouth vacuum” applied at outer ends of the holes.

6. Defendant's products

Defendant sells children's disposable spill-resistant “sippy cups” called “Re-Usable Spill-Proof Cups & Lids.” These cups are sold in 8, 10 and 12-ounce sizes with a variety of

licensed characters printed on them.

To determine whether the accused cups meet the limitations of claims 1-31 of the '604 patent and 1, 7 and 9 of the '784 patent, plaintiffs' expert Tim Osswald visually inspected several cups and performed flow experiments on eight cups. Although Osswald described the water he used for these tests as "fresh water," he did not specify the solid content of the water he used. (He did not indicate the solid content even in his rebuttal report, in which he stated that he reviewed the court's construction of "fresh water," which requires 500 milligrams per liter of dissolved solids or less, and understood it to be a valid medium for performing his tests.)

Plaintiffs' expert Albert Karvelis physically examined and performed testing on defendant's Munchkin brand Dora© series 8 and 12 oz. cups. Samples were sectioned and examined and tested for composition. A total of 15 packages of cups was evaluated, purchased from stores in Michigan, Illinois, and Oregon and from Amazon.com, each with three lids per package. Karvelis's testing consisted of examination of a large sample of lids under a binocular microscope and utilizing vision software to assist in determining the size and character of the lid holes. An analysis using Fourier Transform Infrared Spectroscopy Testing was conducted to determine that polypropylene was the polymer material used in the cups and lids.

Defendant's Munchkin cup is a drinking container for children that has a main body

defining an interior cavity accessible through an opening at an upper end of the main body. The cup has a removable lid that can be secured to the main body at its upper end and, together with the main body, enclose the interior cavity to hold a liquid. The Munchkin cup lid is a solid surface that contains a drinking spout that can be easily received by a human mouth. The lid contains three holes defined by molded surfaces through a dimensionally stable membrane of the drinking spout that pass through the lid and allow for liquid passage to the outside.

The lid of the Munchkin cup has a circular groove sized to receive an upper rim of the cup portion to enclose a cavity for holding a liquid. (Defendant objects to this proposed fact, pointing out that plaintiffs' expert cut only one of defendant's cups and failed to describe the method he used to determine that the cup had a circular groove sized to receive an upper rim of the cup. However, a party can show infringement with only one product, and an expert need not describe his method for visual inspection and determination of the presence of geometric features; it is intuitive. For all its objections, defendant does not propose facts showing that its expert came up with a different conclusion using *his* method. Therefore, the fact is undisputed.)

The testing by plaintiffs' expert Karvelis demonstrated that the sample sets he tested, designated A, B, C, D, F, G, H, I, J, K, L, and M, exhibited the "less than about . . . 0.64 millimeter" claim limitation and the "at least 0.35 square millimeter" claim limitation. Some

of the lids analyzed by Karvelis and Shedd exhibited a major lateral extent of “less than about 0.64 millimeters” for each hole in the drinking spout of the lid. Although the holes had distortions, Karvelis calculated the major lateral extent by substituting the diameter of the smallest circle completely superscribing the hole. The holes of many of the lids tested as having each hole with a major lateral extent of “less than about 0.64 millimeters” also formed an aggregate flow path of at least 0.35 square millimeters.

The thickness of the Munchkin lid membrane through which the holes penetrate ranges between 0.010 and 0.034 inches. The average nominal molded thickness of the Munchkin lids is 0.029 inches. (Once again, defendant objects to these facts on the ground that plaintiff’s expert fails to describe the method for testing the thickness of the lid membrane and nominal thickness of the lid. Such simple tests do not require description of the method. Again, defendant does not propose facts showing that its expert came up with a different conclusion using his method. Therefore, these facts are undisputed.)

(The parties dispute whether the 8 oz. cups and lids weigh less than 25 grams. Neither party submits evidence of a single cup meeting the claim limitations of claim 32 and weighing less than 25 grams; instead, each party simply presents different calculations of the “average weight” of the cup.)

The Munchkin lid is formed of a resin containing polypropylene.

C. The '784 Patent

The Patent and Trade Office issued the '784 patent on March 6, 2007. The '784 patent issued to inventors Connors, Medeiros, Dys, Britto and Hession is entitled "Drinking containers." The '784 patent is a continuation of the '604 patent and is assigned to plaintiff. The patent is generally directed to sippy cups.

1. Prosecution history

Plaintiff submitted a total of 48 references for the '784 patent application, including design patents for Gladware, other disposable containers and the Gartner reference. At the time of the prosecution of the '784 patent, the applicants knew of the following prior art but did not disclose it: a utility patent for Gladware, U.S. Pat. No. 6,170,696 to Tucker, although they disclosed related Gladware design patents; U.S. Pat. No. 2,833,324 to Burroughs; U.S. Pat. No. 3,773,207 to Dokoupil; and certain Gladware and Ziploc containers that inspired the '784 patent.

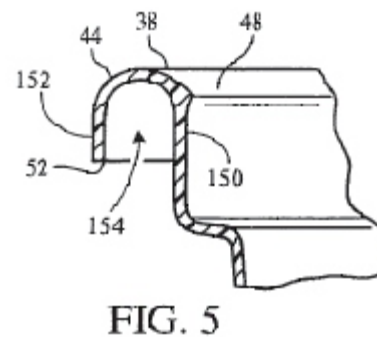
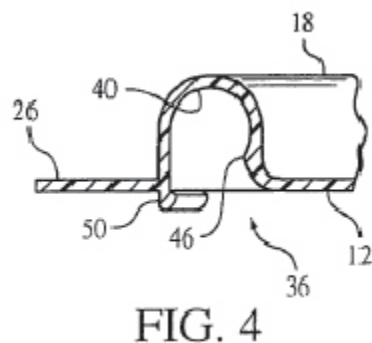
2. Claims

The '784 patent has 10 claims, of which claim 1 is independent. Claim 1 of the '784 patent is directed to a drinking container having a main body and a removable lid with an extended drinking spout, wherein the groove around the lid and the rim of the body have

interlocking features including a first lip projecting radially outwardly and a second lip projecting radially inwardly from the outer surface of the rim of the body. Claim 1 further requires that a nominal radial interference is produced between the first and second lips as the lid and main body are engaged.

3. Specification

Figures 4 and 5 in the specification of the '784 patent show an embodiment of grooves on the lid (Fig. 4) and body (Fig. 5) containing interlocking features:



3. Disclosed prior art: the Gartner patent

The Gartner patent discloses a main body (drinking container 11) having an interior cavity accessible through a cavity open at an upper end of the main body. Lid 10 used with container 11 defines an interior cavity that is accessible through a cavity opening at an upper end of the main body of the container 11. The body 11 has a rim 13 about its opening. It

also discloses a rim having a dome-like upper surface, but it does not disclose a rim having inner and outer walls defining a recess therebetween as required in claim 1 of the '784 patent.

4. Undisclosed prior art

a. Tucker patent

U.S. Pat. No. 6,170,696 to Tucker discloses a container with an interior cavity accessible through a cavity opening at the upper end of the main body. It also discloses a plastic container bottom, which is sealed closed by a flexible container top. The container bottom has a rim about the opening and the rim has an angular dome-like upper surface and an inner and outer wall defining a recess therebetween. Container bottom and flexible container top each define open-ended geometric figures of similar shape having interlocking features on the inboard side. A first protrusion projects radially outwardly from the lid into the groove. A second protrusion projects radially inwardly from the outer surface of the rim of the main body to produce a nominal radial interference between the first and second lips as the lid and main body are engaged. The outer wall of the rim has a lower, distal edge spaced apart from the inner wall to define a recess opening. A container top can be secured to the main body at its upper end in order to cover the cavity. The cavity could hold a liquid. The container top is designed to be slightly larger than the container bottom to form an

interference fit between the top and bottom and form a strong inside seal. The range of the interference fit is between “5 and 80 mils.,” which is the same as a range of 0.005 millimeter to 0.08 millimeter.

The Tucker lid assembly would snap onto the container, given its shape. In addition, the container disclosed in the Tucker patent can hold a liquid.

b. Burroughs patent

The Burroughs ‘324 patent issued on May 6, 1958. It discloses a container with an interior cavity accessible through a cavity opening at the upper end of the main body. The container has a lip that has a curved portion. This forms a recess. Also disclosed is the limitation of having the outer wall of the rim having a lower, distal edge spaced apart from the inner wall to define a recess opening.

A lid in the Burroughs ‘342 patent can be secured in an airtight fashion to the main body at its upper end in order to cover the cavity. The groove about the lid and the rim of the main body have outer surfaces. There are interlocking features on an inboard side, including a tapered surface projecting radially outwardly from the lid into the groove and a tapered surface 34 extending radially inwardly from the outer surface of the rim of the main body to produce a nominal interference between the first and second tapered surfaces as the lid and main body are engaged. The lid has a groove having an inner surface that mates with

an outer surface of the rim of the main body of the container. Both the inner surface of the groove on the lid and the outer surface of the container rim define arcs of similar shape and have interlocking features on an inboard side.

c. Dokupil patent

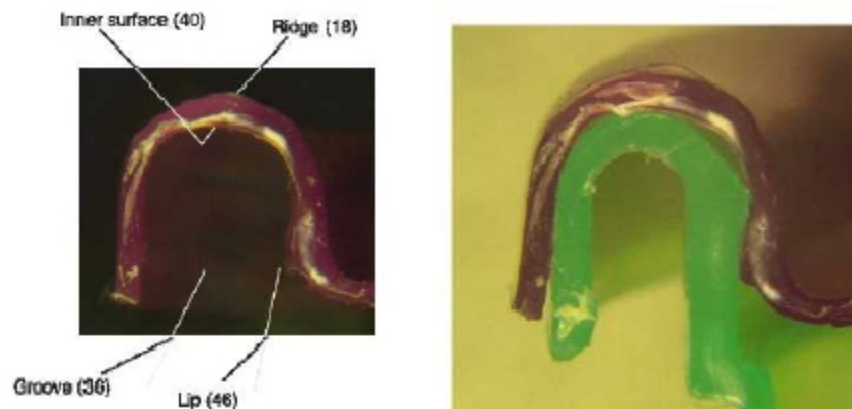
The Dokoupil '207 patent also discloses a thermoplastic container and a lid that maintains an airtight seal with respect to the container. The Dokoupil '207 patent discloses a container with an interior cavity accessible through a cavity opening at the upper end of the main body and a container rim. The rims on the container and lid each define arcs of similar radii and have interlocking features on an inboard side.

The container rim has a dome-like upper surface and inner and outer walls defining a recess therebetween. The lid rim 20 a lower, distal edge spaced apart from the inner wall to define a recess opening. A lid can be secured to the main body at its upper end in order to cover the cavity. The cavity could hold a liquid. A lid defines a groove about its edge sized to receive and snap over the rim of the main body and form a seal (the lid is stretched down over the rim). Interlocking features are disclosed including a first lip projecting radially outward from the lid into the groove and a second protrusion projecting inward from the outer surface of the rim of the main body to produce a nominal interference between the first and second protrusions as the lid and main body are engaged.

5. Defendant's products

Plaintiffs' expert, Dr. Osswald, analyzed defendant's Munchkin cups, not only by direct observation of intact cups, but also by generating a cross-section of a cup and lid assembly. Osswald observed that the Munchkin sippy cup has a lip that projects radially inwardly from the outer surface of the rim into the groove and a groove defined about its edge where the groove is sized to receive and snap over the rim of the main body of the cup to form a seal. In addition, he observed that the lid of the cup has a lip that projects radially outwardly into the groove and that the groove in defendant's Munchkin lid has an inner surface and the rim of the cup body has an outer surface, both of which define semi-circular arcs of similar radii. These surfaces have interlocking features on the inboard side. Osswald observed the interlocking features of the Munchkin sippy cup and observed the nominal radial interference produced upon engagement of the lid and cup body.

In addition, plaintiff has submitted demonstrative evidence of the appearance of the cup.



Defendant's Munchkin cups are drinking containers. The Munchkin cup has a main body with an opening at the upper end. The body of the Munchkin cup has a rim about its opening with a domed upper surface, with inner and outer walls that define a recess between them. The outer wall of the rim has a lower distal edge, spaced apart from the inner wall to define a recess opening. The removable lid of the Munchkin cup is secured to the main body at its upper end and covers the opening. When closed, the Munchkin cup holds the liquid in its interior. The lid has a groove defined about its edge, which is sized to receive and snap over the rim of the main body of the cup to form a seal.

The Munchkin cup lid has an extended drinking spout that is sized to be received within the human mouth. The spout has three unrestricted holes that provide an open hydraulic communication between the exterior surfaces of the container and the interior cavity to dispense liquid in response to a vacuum applied to the outer ends of the holes.

The lid of the Munchkin cup has a groove having an inner surface and the rim of the Munchkin cup's body has an outer surface, both of which define semi-circular arcs of similar radii. Both surfaces have interlocking features on the inboard side. The lid of the Munchkin cup has a lip that projects radially outwardly into the groove. The cup's body has a lip that projects radially inwardly from the outer surface of the rim. When the lid and the body of the Munchkin cup are engaged, the lips on the lid and the body produce a nominal radial interference.

The thickness of the lid and body of the Munchkin cup varied between 0.027 and 0.034 inch. Osswald weighed several different Munchkin cups. All weighed consistently between 27 and 29 grams.

OPINION

A. The '604 Patent

1. Infringement

Plaintiffs contend that defendant's Re-Usable Spill-Proof Cups & Lids (the Munchkin cups) infringe claims 1-6, 8, 9, 11, 12, 20, 21, 22, 23, 26, 30, 32, 36, 48, 54, 55, 57, 61, 64, 65, 67, 73, 77 and 79 of the '604 patent. Plaintiffs have moved for summary judgment as to all claims except 79. Defendant has moved for summary judgment only as to claims 1-6, 8, 9, 11, 12, 20-23, 26 and 30 (Although defendant moved for summary judgment of noninfringement of claims 7, 10, 13-19, 24, 25, 27-29, 31, 33, 45, 50-53, 58, 69 and 75 as well, plaintiffs are not asserting any of these claims. In the absence of any case or controversy as to these claims, defendant's motion must be denied and the counterclaims dismissed.)

a. Claims 1-6, 8, 9, 11, 12, 20-23, 26 and 30: the fresh water tests

Plaintiffs' claims for infringement of claims 1-6, 8, 9, 11, 12, 20, 21, 22, 23, 26 and

30 may be addressed summarily. Claim 1 requires that a drinking container meet a “three-drop” test and a vacuum flow test using “fresh water.” Claims 2-6, 8, 9, 11, 12, 20-23, 26 and 30 depend from claim 1. In an order entered on May 13, 2008, I reconsidered whether the term “fresh water” was insolubly ambiguous and concluded that it could be construed to mean “water containing no more than 500 milligrams per liter of dissolved solids.” In spite of this specific limitation, plaintiffs submitted no evidence that they had attempted to perform the three-drop test or the vacuum flow test using water having 500 milligrams or less of dissolved solids. Plaintiffs did not submit a supplement to Osswald’s expert report in light of the May 13 construction of “fresh water.” Instead, in Osswald’s declaration dated June 6, 2008, he simply states that he used “fresh water” in his tests. Such a conclusory statement is inadmissible evidence of the solid content in the water he used. It is akin to an expert’s asserting that “the cup infringes claim 1.” Surely plaintiffs would not expect such a statement to serve as evidence that the cup meets all of the underlying elements in the claim.

Plaintiffs were required to come forward with evidence that defendant’s product met *each* claim limitation. Despite this court’s construction that “fresh water” is limited to water with a certain solid content, plaintiffs have failed to adduce evidence that they used “fresh water” to test defendant’s cups. Therefore, they have failed to prove that defendant’s cups infringe claim 1 or any of its dependent claims. Defendant’s motion for summary judgment

of noninfringement will be granted and plaintiffs' motion for summary judgment of infringement will be denied as to claims 1-6, 8, 9, 11, 12, 20-23, 26 and 30 of the '604 patent.

b. Claims 32, 36, 48, 54, 55, 57, 61, 64, 65, 67, 73 and 77: hole size and aggregate flow path

Next, plaintiffs contend that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 32, 36, 48, 54, 55, 57, 61, 64, 65, 67, 73 and 77. Claims 32 and 57 are independent claims. Claims 36, 48, 54, and 55 depend from claim 32 and claims 61, 64, 65, 67, 73 and 77 depend from claim 57.

Defendant contends that independent claims 32 and 57 are not met because both require that holes in the drinking spout of the lid each have a "major lateral extent" of "less than about 0.025 inch (0.64 millimeter)." First, defendant disputes plaintiffs' expert's finding that a "majority" of the holes tested were less than 0.64 millimeters, arguing that he failed to properly determine the "mean" hole size of the cups, which would be greater than 0.64 millimeters. As plaintiffs ultimately recognized, the issue is not whether "most" of the holes tested met the claim language, the issue is whether *each* of the holes on a given lid of defendant's product had a major lateral extent of 0.64 millimeters. However, infringement by a "majority" of holes was not plaintiffs' expert's only finding. He also showed that several

individual lids he tested showed all three of the holes having a major lateral extent of less than 0.64 millimeter. Dkt. #74-2, at 16-21. The overall number of holes meeting the requirements of the claim is irrelevant to infringement, although it may be relevant to the issue of damages.

In addition, defendant attempts to dispute plaintiffs' expert's measurements of the hole sizes, arguing that his measurements were flawed because he measured the diameter of the smallest circle superscribing the hole instead of the diameter of the hole. The parties stipulated that "major lateral extent" means "the greatest diameter of a hole measured within a plane that is transverse to a longitudinal axis of the hole." Dkt. #19-2, at 43. However, plaintiffs' expert's measurements always result in a size greater than or equal to the definition agreed upon by the parties because the diameter of a circle *superscribing* a hole is always greater than or equal to the diameter of the hole itself. Thus, to the extent plaintiffs' expert's measurements resulted in hole sizes of less than 0.64 millimeters, the claim limitation is shown to have been met.

Defendant's next argument is that the facts suggest that the holes sized small enough to infringe might be a result of unintentional "flash." This argument does not help defendant. Whether the holes meet the claim requirements as a result of unintentional manufacturing error or intentional product design is irrelevant; intent is not an element of direct infringement. Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc., 62 F.3d

1512, 1519 (Fed. Cir. 1995), overruled on other grounds by Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co., 520 U.S. 17 (1997). The analysis ends once it is shown that defendant's product satisfies all claim limitations. Defendant does not deny that all of the other claim limitations to independent claims 32 and 57 are met; therefore, plaintiffs' motion for summary judgment will be granted as to these two claims.

As for the dependent claims, most of the underlying facts necessary to meet the claim limitations are undisputed. The facts necessary to satisfy claims 48, 55, 61, 67, 73 and 77 are not disputed in any way by defendant. Moreover, defendant's only "dispute" regarding the facts necessary to satisfy claims 36 and 65 relates to whether plaintiffs' expert should have explained the method he used for measuring thickness of the lid. As I said in the facts section, no explanation is necessary on such simple matters. Because it is undisputed that defendant's cups infringe claims 36, 48, 55, 61, 65, 67, 73 and 77, plaintiffs' motion for summary judgment will be granted as to these seven claims as well.

This leaves claims 54 and 64. Claim 54 requires the drinking container and lid claimed in claim 32 to weigh "less than about 25 grams." Although plaintiffs submitted evidence of the "average weight" of the cups their expert tested, defendant challenged that calculation. Again, the "average" weight of the cups is irrelevant to whether a cup meets the claim limitations. However, plaintiffs submitted no evidence to tie the cups meeting the requirements of claim 32 (from which claim 54 depends) to the cups weighing less than

about 25 grams. Although defendant's expert showed that some of the cups he tested weighed less than 25 grams, it is not possible to determine whether any of these cups met the other requirements of claim 32. Given plaintiffs' "averages," it is possible that some of the infringing cups weighed less than 25 grams but plaintiff has not shown this as a matter of law. Therefore, plaintiffs' motion for summary judgment will be denied as to this claim.

Claim 64 requires that the lid of claim 61 be "integrally and unitarily molded from a resin." Plaintiffs have failed to adduce any competent evidence that defendant's Munchkin lid is "integrally and unitarily molded." Although plaintiffs proposed as a fact that the lid "is integrally and unitarily molded from a resin," the only evidence of that fact is plaintiffs' expert's statement that testing showed that the lid is formed from a resin, with no explanation of how this shows that the lid is "integrally and unitarily formed." Because the fact is not adequately supported by evidence, it will be disregarded. Therefore, plaintiffs' motion for summary judgment will be denied as to this claim as well.

2. Inequitable conduct

Defendant is asserting counterclaims for inequitable conduct in connection with prosecution of the '604 patent. Defendant did not move for summary judgment on this issue, but plaintiffs did. Defendant contends that material issues of fact preclude summary judgment and seeks to proceed on three separate theories: (1) plaintiffs' failure to disclose

prior art cups to the examiner; (2) plaintiffs' failure to disclose the Gartner reference by "burying" it; and (3) plaintiffs' misrepresentation to the examiner about how their invention works.

As the accused infringer, defendant bears the burden of proving inequitable conduct. Star Scientific, Inc. v. R.J. Reynolds Tobacco Co., ___ F.3d ___, 2008 WL 3891543, *5 (Fed. Cir. Aug 25, 2008). To do so, defendant must show two elements, each by clear and convincing evidence: "the applicant (1) made an affirmative representation of material fact, failed to disclose material information or submitted false material information and (2) intended to deceive the [Patent and Trademark Office]." Id. (citations omitted).

Defendant's first two theories for inequitable infringement are non-starters. To establish that withheld (or buried) prior art was "material," defendant was required to prove that it was not merely cumulative of art already before the patent examiner. Id. at *7 (citing 37 C.F.R. § 1.56(b)). It is undisputed that the examiner had before it at least 36 other references. Defendant makes no effort to establish that an examiner would have considered the additional prior art important, given the references already before it. Therefore, plaintiffs' motion for summary judgment will be granted with respect to defendant's claims that plaintiffs engaged in inequitable conduct by failing to disclose prior art and burying the Gartner patent during prosecution of the '604 patent.

Defendant's third theory must proceed to trial. It is undisputed that plaintiffs failed

to make it clear that the “three-drop” test disclosed in claim 1 was not solely a function of the surface tension of the holes, instead overemphasizing the surface tension effect of the holes, and therefore exaggerating the relative importance of hole size to the claims. On appeal, the Board agreed with plaintiffs’ position, accepting plaintiffs’ representation that the difference between the holes disclosed in the prior art patent Proshan and the ‘604 patent went beyond a mere change in dimension.

Plaintiffs contend that a “careful” reading of the prosecution history shows that the surface tension theory was not material because the applicants emphasized *both* shrinking small holes to reap a surface tension effect *and* increasing the number of holes to increase flow. Even so, the surface tension effect was clearly the “new principle of operation” touted by applicants and found convincing by the Board, not the obvious notion that increasing the *number* of holes can counteract a reduction in flow rate caused by making holes smaller. Because the vacuum effect was never disclosed, the Board did not have a full opportunity to determine the true significance of the difference in size and number of holes between Proshan and the invention disclosed in claim 1 of the ‘604 patent. A reasonable examiner (and Board) would have considered the vacuum effect important information; therefore, it was material. Star Scientific, 2008 WL 3891543, *7.

Having determined that defendant can prove materiality, I must decide whether defendant can prove that plaintiffs intended to deceive the Patent and Trademark Office.

To do so, defendant must make a “threshold” showing of intent. Id. at *8. Of course, “[g]iven that direct evidence [of intent to deceive] is often unavailable, intent is generally inferred from surrounding facts and circumstances.” Aventis Pharma S.A. v. Amphastar Pharmaceuticals, Inc., 525 F.3d 1334, 1343-44 (Fed. Cir. 2008). In this case, defendant has adduced evidence that, before submitting the patent application, plaintiffs had tested cups with and without vent holes to determine the effect of vacuum pressure and discovered that “[i]ntroducing [a] vent hole dramatically increases leak potential.” Thus, before applying for the patent, plaintiffs were well aware that the vacuum effect was important to leakage, but never disclosed this, either in the claim language, the specification language or the prosecution history. This evidence suffices as a “threshold” showing that applicants had the requisite intent to deceive.

Once the defendant makes a threshold showing of intent to deceive, the patentee may rebut that showing by offering a good faith explanation for his alleged misconduct. Nordberg, Inc. v. Telsmith, Inc., 82 F.3d 394, 398 (Fed. Cir. 1996). Plaintiffs offer no explanation for their failure to disclose the vacuum effect, except for their suggestion that the disclosure was not necessary to overcome the examiner’s finding of obviousness in light of Proshan. At this point, I cannot say as a matter of law that a reasonable fact finder would be required to agree with plaintiffs. Therefore, plaintiffs’ motion for summary judgment will be denied with respect to defendant’s claim that plaintiffs engaged in inequitable conduct

by failing to disclose the “vacuum effect” during prosecution of the ‘604 patent.

3. Invalidity

Defendant has moved for partial summary judgment on its counterclaims of invalidity, contending that all claims of the ‘604 patent are invalid as lacking in utility and enablement and alternatively that certain claims are invalid as anticipated or obvious. Plaintiffs have moved for summary judgment of validity, contending that defendant has failed to show by clear and convincing evidence that any of the claims of the ‘604 patent are invalid for any of the reasons asserted by defendant. (Courts do not find “validity”; they can find only that the person asserting invalidity has failed to make the necessary showing. Durango Associates, Inc. v. Reflange, Inc., 843 F.2d 1349, 1356 n.4 (Fed Cir. 1988) (“A patent should not be declared ‘valid’ by a court because other challengers may be able to prove invalidity using different evidence.”))

a. Lack of utility and enablement

First, defendant contends that all claims of the ‘604 patent are invalid for lack of utility under 35 U.S.C. § 101 or for lack of enablement under 35 U.S.C. § 112. Section 101 requires that a purported invention be a useful discovery or invention, In re Comiskey, 499 F.3d 1365, 1374-75; § 112 requires that the specification enable a person to practice the

invention without undue experimentation. AK Steel Corp. v. Sollac and Ugine, 344 F.3d 1234, 1244 (Fed. Cir. 2003).

Defendant contends that the invention underlying the '604 patent is not a discovery at all because the applicants were wrong about surface tension being key to the claimed inventions. It is possible that the applicants' theory about the importance of surface tension is wrong with regard to the claims reciting the three-drop test because these tests require "quasi-static conditions" and once they are achieved, surface tension takes a back seat to the vacuum formed in the cup. (This is an issue that will be fleshed out in the court trial on inequitable conduct.) However, I have already concluded that defendant's products do not infringe any of the claims reciting the three-drop test; instead of attempting to decide the difficult question of utility as to those claims, I will dismiss these counterclaims in my discretion. Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1468 (Fed. Cir. 1998) (quoting Leesona Cop. v. United States, 208 Ct. Cl. 871 n.9 (Cl. Ct. 1976)) (where non-infringement is clear and validity is not straightforward, it is within court's discretion to dismiss invalidity counterclaims without prejudice).

As for the claims not related to the three-drop test (independent claims 32, 57 and 79 and claims depending from them), defendant's utility argument fails. The likelihood that surface tension plays no role in claim 1 given the "quasi-static" conditions limitation says nothing about whether surface tension plays any role in reducing leakage generally, or

whether the small hole sizes claimed in independent claims 32, 57 and 79 may serve some “useful” purpose. Indeed, defendant’s expert showed that surface tension *is* relevant to leakage when he tested the leakage of milk, which he admits took longer to stabilize. Because defendant has not shown that it could prove at trial by clear and convincing evidence that small hole sizes would not be useful, I will deny defendant’s motion for summary judgment and grant plaintiffs’ motion on defendant’s counterclaim for declaratory judgment that the claims of the ‘604 patent are invalid for lack of utility.

Next, defendant contends that the claims of the ‘604 patent are not enabled because the specification discloses hole sizes for cups “not leak[ing] more than 3 drops” and it would require undue experimentation to determine the hole size of a cup that would drip “less than 3 drops” as required in claim 1. It is hard to reconcile this position with defendant’s argument that hole size plays no role in the three-drop test; however, I need not consider the merits of this claim. Defendant’s enablement argument relates only to those claims reciting the three-drop test, which are claims for which I have concluded there is no infringement. For the same reason that I decline to determine whether these particular claims lack utility, I decline to determine whether they lack enablement. I will dismiss this counterclaim without prejudice. Phonometrics, 133 F.3d at 1468 (court may dismiss invalidity counterclaims without prejudice once noninfringement has been established).

b. Anticipation and obviousness

Having considered both issues that might dispose of all claims in the '604 patent, I turn to defendant's claims that claims 1-13, 15, 16, 19-21, 26-30, 32-49, 58-68, 70-74, 76, 77 and 79 are invalid as anticipated or obvious. Before plodding into the merits on each and every claim raised, it is appropriate to trim some fat. Plaintiffs are not asserting infringement of claims 7, 10, 13-19, 24, 25, 27-29, 33-35, 37-47, 49, 58-60, 62, 63, 66, 68, 70-72, 74 or 76; therefore, there is no case or controversy as to those claims and defendant's counterclaims for declaratory judgment of invalidity of these claims will be dismissed and its motion for summary judgment denied. As for defendant's counterclaims of invalidity of claims 1-12, 20, 21, 26 and 30, I have concluded that plaintiffs have failed to adduce evidence that defendant is infringing independent claim 1 or the claims depending from it because plaintiffs failed to show that they tested the cup and lid with "fresh water" as I construed the term. Defendant's counterclaims of invalidity for claims related to the "fresh water" tests are tangled up with its theory that prior art cups would "inherently" pass the three-drop test, using modified prior art lids support its theory. Rather than wade through these dubious claims, I will dismiss without prejudice defendant's counterclaims for declaratory judgment that claims 1-6, 8, 9, 11, 12, 20, 21, 26 and 30 are invalid as anticipated or obvious, pursuant to Phonometrics, 133 F.3d at 1468.

In addition, the parties agree that, in light of my earlier conclusion that the term

“natural state surface energy” cannot be construed because it is insolubly ambiguous, claims 31, 56 and 78 are invalid as indefinite. Therefore, defendant’s motion for partial summary judgment will be granted as to its counterclaims for declaratory judgment that claims 31, 56 and 78 are invalid as indefinite.

This leaves defendant’s counterclaims for declaratory judgment that independent claims 32, 57 and 79 and dependent claims 36, 48, 54, 55, 61, 64, 65, 67, 73, 77 and 79 of the ‘604 patent are invalid as anticipated or obvious.

Defendant’s theory of anticipation requires little discussion. Anticipation requires that “all aspects of the claimed invention were already described in a single reference.” Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576- 77 (Fed. Cir. 1991). Although it is undisputed that Gartner teaches most of the claim limitations of independent claims 32, 57 and 79, it is also undisputed that Gartner teaches holes ranging from about 0.02 inch to about 0.04 inch. The ‘604 independent claims disclose hole sizes “less than about 0.025 inch.” Gartner’s range would include holes between 0.02 inch and 0.025 inch but would not include smaller hole sizes taught by the ‘604 patent. Because Gartner does not cover “all aspects” of claims 32, 57 and 79, these claims are not invalid as anticipated; necessarily, neither are the remaining dependent claims, which include all limitations found in the independent claims. In re Trans Texas Holdings Corp., 498 F.3d 1290, 1300 (Fed. Cir. 2007) (invalidity counterclaims of both independent and dependent

claims may rise and fall on failure to teach a single limitation). Therefore, defendant's motion for summary judgment will be denied and plaintiffs' motion will be granted with respect to defendant's counterclaims for declaratory judgment that claims 32, 36, 48, 54, 55, 57, 61, 64, 65, 67, 73, 77 and 79 are invalid as anticipated.

Finally, I turn to defendant's argument for obviousness. For the independent claims, it is undisputed that the only shortcoming in Gartner is that the hole size taught in that patent merely overlaps with the hole size taught in the '604 patent. As the Court of Appeals for the Federal Circuit held in Ormco Corp. v. Align Technology, Inc., 463 F.3d 1299, 1311 (Fed. Cir. 2006), "[w]here a claimed range overlaps with a range disclosed in the prior art, there is a presumption of obviousness." The overlap need not be substantial to trigger the presumption. In re Geisler, 116 F.3d 1465, 1469 (Fed. Cir. 1997) (acknowledging that claimed invention was rendered prima facie obvious by prior art reference when disclosed range (50-100 Angstroms) overlapped claimed range (100-600 Angstroms)); In re Woodruff, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (concluding that claimed invention was rendered obvious by prior art reference whose disclosed range ("about 1-5%" carbon monoxide) abutted claimed range ("more than 5% to about 25%" carbon monoxide)).

Under Federal Circuit law, the presumption of obviousness can be rebutted if it can be shown that the prior art teaches away from the claimed range, or the claimed range produces new and unexpected results. Iron Grip Barbell Co. v. USA Sports, Inc., 392 F.3d

1317, 1322 (Fed. Cir. 2004). This exception to a finding of obviousness may no longer apply after KSR International Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741-42 (2007) (holding that Federal Circuit's standard for obviousness incorrectly required that prior art include specific teaching to solve particular problem at issue); however, even under the Federal Circuit cases, plaintiffs have failed to overcome the presumption. The only "teaching away" from the prior art or creation of "new and unexpected results" found in the '604 patent relates to the supposed unexpected results of creating holes small enough that surface tension has a "significant" effect or adding more holes to get more flow rate. The relative importance of surface tension on leakage has been shown to be secondary to the vacuum effect that prevents leakage in holes even larger than those disclosed in the prior art, and the idea that more holes means more flow rate is hardly noteworthy. Therefore, plaintiffs have failed to make a showing sufficient to rebut the presumption of obviousness. Because plaintiffs failed to rebut the presumption with respect to independent claims 32, 57 and 79, claims 61, 67, 73 and 77 must be obvious as well because it is undisputed that Gartner teaches the additional limitations taught in these claims.

The two remaining disputes are whether it would be obvious to create the drinking container disclosed in 32 so that it weighs less than 25 grams (claim 54) and whether it would be obvious to create the lid with a nominal molded thickness of less than about 0.035 inch (claims 36 and 65). As for the obviousness of claim 54, defendant's expert asserts that

“it would have been obvious to a person of ordinary skill in the art to make the container weigh as little as possible in order to conserve material and reduce manufacturing costs.” Although this view could have been developed more, it does identify market forces that the expert believes would drive a common-sense design approach, and plaintiffs do not dispute the effect of these forces. Their attempt to dispute this fact rests on a blanket statement that nothing in the prior art would have led a person of ordinary skill in the art to expect success on *any* claim disclosed in the ‘604 patent. Such a statement fails to put into dispute the specific fact proposed by defendant. Therefore, I conclude that claim 54 is obvious as well.

Defendant’s effort to show the obviousness of claims 36 and 65 falls short. Defendant points to drawings in the Gartner specification showing the hole size (which is elsewhere described as between about 0.02 inch and 0.04 inch) and showing lid thickness of about the same size in the drawing. However, the drawing is not drawn to scale, and “arguments based on drawings not explicitly made to scale in issued patents are unavailing” as proof of invalidity based on the prior art. Nystrom v. Trex Co., Inc., 424 F.3d 1136, 1149 (2005) (citing Hockerson-Halberstadt, Inc. v. Avia Group Int’l, Inc., 222 F.3d 951, 956 (Fed. Cir. 2000)).

In sum, I conclude that claims 32, 54, 57, 61, 67, 73 and 79 are invalid as obvious and claims 31, 56 and 78 are invalid as indefinite. I will grant defendant’s motion for partial summary judgment and deny plaintiffs’ motion as to defendant’s counterclaims for

declaratory judgment that those claims are invalid. No other claims are invalid as anticipated or obvious. Plaintiffs' motion for summary judgment will be granted and defendant's motion denied as to the remaining claims raised, claims 36, 48, 64 and 65.

B. The '784 Patent

1. Infringement

Plaintiffs contend that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 1, 7 and 9 of the '784 patent. Plaintiffs have moved for summary judgment of infringement as to all claims. Defendant has moved for summary judgment of noninfringement as to claim 1 (and therefore dependent claims 7 and 9 as well).

Defendant contends that its products do not infringe independent claim 1 because they do not have a "discrete edge" which, according to defendant, claim 1 requires because it discloses "lips." I decided otherwise, in the order construing claims entered April 16, 2008. Dkt. #37 at 31-32. Although I declined to construe the term "lips," I addressed the parties' dispute related to the term and concluded that the "lip" disclosed in claim 1 was not required to have a "discrete edge." Id. Defendant contends that, because I declined to construe the term "lips" I must do so now, and it suggests elsewhere that "reconsideration" of the issue is appropriate at this stage. It cites O2 Micro International, Ltd. v. Beyond Innovation Technology Co., 521 F.3d 1351, 1361-63 (Fed. Cir. 2008), for the proposition

that “lips” must be construed because the parties dispute the meaning. This is not what O2 Micro says. O2 Micro requires only that a district court “adjudicate the parties’ dispute regarding the proper scope” of claim terms. There is no obligation for the district court to guess at the precise scope of a term when the parties fail to provide adequate constructions and the parties’ dispute does not require it. The parties disputed whether “lips” must have a discrete edge and I concluded in an order construing claim terms that they need not. Thus, I resolved the parties’ dispute, regardless whether I provided a construction of the term “lips.”

Next, defendant suggests that now is as good a time as any for the court to reconsider its decision regarding the meaning of “lips.” Although it may be appropriate in some circumstances to reconsider the construction of a claim term once the contours of the controversy have been sharpened at summary judgment, this is not one of them. Defendant declined to move for reconsideration of my conclusion that “lips” does not require a discrete edge, instead allowing plaintiffs to rely upon the holding until summary judgment when defendant rejuvenated the same arguments it had raised before. If defendant believed that I erred in refusing to import “discrete edge” into the claim limitations, it should have brought a timely motion for reconsideration.

Defendant attempts to put into dispute several facts related to infringement of claims 1, 7 and 9 of the ‘784 patent on two grounds. First, defendant objects to several facts on the

ground that Osswald's observations of defendant's cup are inadequate because he cut only a single cup and failed to describe his method for observing the cup. As I observed earlier, one cup is enough to establish infringement and an expert does not need to describe a method for observing a cup and describing geometric features visible on the cup or for taking basic measurements of the cup. Second, defendant attempts to put into dispute Osswald's observations of a lip by citing deposition testimony from plaintiffs' Rule 30(b)(6) witness in which he stated that he did not see a lip in a CAD drawing of defendant's product. This is not evidence of a material dispute; the witness was not providing expert testimony of the features of defendant's product. Moreover, the drawing shown to the witness was not even purported to be a drawing that represents the dimensions of all of defendant's product line, only the most recent version of it. Notably, defendant never attempts to show that its experts came to different conclusions upon observing the cup and lid or their cross-sections. Because Osswald's observations of defendant's cup and lid are undisputed and serve to establish all the claim limitations of claims 1, 7 and 9 of the '784 patent, plaintiffs' motion for summary judgment will be granted and defendant's motion will be denied as to plaintiffs' claims that defendant's product infringes those claims.

2. Inequitable conduct

Plaintiffs have moved for summary judgment on the allegation in defendant's

counterclaim that plaintiffs engaged in inequitable conduct during prosecution of the '784 patent by failing to disclose certain prior art to the Patent and Trademark Office, including: U.S. Pat. No. 6,170,696 to Tucker, U.S. Pat. No. 2,833,324 to Burroughs, U.S. Pat. No. 3,773,207 to Dokoupil and certain Gladware and Ziploc containers that inspired the '784 patent.

Plaintiffs' motion will be granted. Defendant must prove that prior art allegedly withheld from the Patent and Trademark Office was "material," which includes showing that the prior art is not cumulative of references already before the patent examiner. Star Scientific, 2008 WL 3891543, *7 (citing 37 C.F.R. § 1.56(b)). It is undisputed that the examiner had at least 48 prior art references before him. Defendant attempts to prove materiality of the withheld prior art by showing that the applicants submitted certain design patents to the Patent and Trademark Office while failing to submit the related utility patents and by showing that the prior art withheld taught most, if not all, of the limitations disclosed in the claims of the '784 patent. This is not enough. Because there were no facts proposed related to the significance of the rest of the prior art before the Patent and Trademark Office, the evidence is insufficient to allow a reasonable juror to conclude that a reasonable examiner would have considered the withheld prior art to be important as opposed to merely cumulative. Id. Therefore, plaintiffs' motion for summary judgment will be granted with respect to defendant's claim that plaintiffs engaged in inequitable conduct by failing to

disclose prior art during prosecution of the '784 patent.

3. Invalidity

Defendant has moved for summary judgment of invalidity on claims 1-10. Because only 1, 7 and 9 are in play, the motion will be denied and defendant's counterclaims dismissed as to claims 2-6, 8 and 10. Defendant asserts only obviousness because it has no basis for contending that the claims are invalid as anticipated; no claim is taught by a single prior art reference. Unfortunately for defendant, its only evidence of obviousness is a chart submitted by its expert, listing the claim limitations of each claim, identifying the different prior art patents that satisfy each claim term and concluding that the subject matter would have been obvious to a person of ordinary skill in the art at the time the invention was made. This is not enough, even following KSR International, 127 S. Ct. 1727. In KSR, the Supreme Court held that it is not necessary in every case to show a teaching, suggestion or motivation to combine prior art to establish obviousness. Id. at 1742. However, this does not mean that a defendant may simply gather prior art and put together the pieces in hindsight to establish obviousness. Id. (factfinder must be cautious of the distortion caused by hindsight bias). Mere assertions that a combination was "obvious to try" may still suffice in some cases, such as when there is evidence of a "design need or market pressure to solve a problem" and a "finite number of identified, predictable solutions," id., or when a

motivation to combine may be found implicitly in the prior art. Alza Corp. v. Mylan Labs, Inc., 464 F.3d 1286, 1291 (Fed. Cir. 2006); see also Innogenetics, N.V. v. Abbott Laboratories, 512 F.3d 1363, 1373-74 n.3 (Fed. Cir. 2008) (even post-KSR, complete absence of proof of motivation to combine will not suffice).

Neither situation applies to this case, where there is no evidence of a design need in the sippy cup market for lids designed as those disclosed in the '784 patent and there is nothing "implicit" about applying the features of a general plastic container to the more specialized drinking cup use described in the '784 patent. Therefore, defendant's motion for summary judgment of obviousness will be denied and plaintiff's motion granted with respect to defendant's counterclaims for declaratory judgment that claims 1, 7 and 9 of the '784 patent are invalid as obvious.

C. Clean Up

Because so many matters have been decided in this opinion, it is necessary to take stock of what remains for trial. For plaintiffs, I have concluded that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 36 and 65 of the '604 patent and claims 1, 7 and 9 of the '784 patent and that these claims are not invalid; the only issue remaining as to those claims is that of damages, which will be determined by a jury. For defendant, the only issue remaining is whether plaintiffs engaged in inequitable misconduct during prosecution

of the '604 patent by failing to disclose the effect of vacuum pressure on leakage, an issue to be determined by the court. No invalidity issues remain unresolved. Claims 31, 56 and 78 of the '604 patent are invalid as indefinite and claims 32, 54, 57, 61, 67, 73, 77 and 79 of the '604 patent are invalid as obvious; as to all other claims that remained in this case after noninfringement of claims 1-31 was determined, defendant has failed to carry its burden of proving invalidity by clear and convincing evidence. Summary judgment will be granted to plaintiffs.

ORDER

IT IS ORDERED that

1. Defendant Munchkin, Inc.'s motion to strike color photographs in the declaration of Tim A. Osswald (dkt. #126) is DENIED.

2. Plaintiffs The First Years, Inc.'s and Learning Curve Brands, Inc.'s two motions for leave to file reply briefs (dkt. ##91 and 124) are DENIED.

3. Plaintiffs' motion to strike portions of the rebuttal report of Timothy A. Shedd (dkt. #56) is GRANTED in part; ¶¶ 19-24 are excluded from evidence and ¶¶ 7-15 are excluded from evidence for all purposes except as related to whether defendant's products infringe the '604 and '784 patents.

4. Plaintiffs' motion to file a supplemental brief in opposition to defendant's motion

for partial summary judgment (dkt. #145) is GRANTED.

5. Plaintiffs' motion to strike the declaration of William J. Gartner and for costs (dkt. #107) is DENIED.

6. Plaintiffs' motion to strike portions of the declaration of John L. Knoble (dkt. #85) is DENIED.

7. Plaintiffs' motion to strike portions of the declaration of Kevin Johnson (dkt. #90) is DENIED.

8. Plaintiffs' motion for partial summary judgment of infringement (dkt. #66) is:

a. DENIED with respect to plaintiffs' claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 1-6, 8, 9, 11, 12, 20, 21, 22, 23, 26, 30, 54 and 64 of U.S. Pat. No. 6,976,604; and

b. GRANTED with respect to plaintiffs' claims that defendant's Re- Usable Spill-Proof Cups & Lids infringe claims 32, 36, 48, 55, 57, 61, 65, 67, 73 and 77 of U.S. Pat. No. 6,976,604 and claims 1, 7 and 9 of U.S. Pat. No. 7,185,784.

9. Defendant's motion for partial summary judgment of noninfringement (dkt. #57) is:

a. GRANTED with respect to plaintiffs' claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 1-6, 8, 9, 11, 12, 20, 21, 22, 23, 26 and 30 of U.S. Pat. No. 6,976,604; and

b. DENIED with respect to plaintiffs' claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 14, 17, 18, 24, 25, 32, 33, 36, 45, 48, 50-53, 55, 57, 58, 61, 65, 67, 69, 73, 75 and 77 of U.S. Pat. No. 6,976,604 and claims 1, 7 and 9 of U.S. Pat. No. 7,185,784.

10. Plaintiffs' motion for summary judgment of no inequitable conduct (dkt. #70)

is:

a. DENIED with respect to defendant's claim that plaintiffs engaged in inequitable conduct by failing to disclose the "vacuum effect" during prosecution of the '604 patent; and

b. GRANTED with respect to defendant's claims that plaintiffs engaged in inequitable conduct by failing to disclose prior art and burying the Gartner patent during prosecution of the '604 patent and by failing to disclose prior art during prosecution of the '784 patent.

11. Plaintiffs' motion for partial summary judgment of validity (dkt. #68) is:

a. GRANTED with respect to defendant's counterclaims for declaratory judgment:

i. that claims 32-79 of U.S. Pat. No. 6,976,604 are invalid as lacking utility;

ii. that claims 32, 54, 55, 57, 61, 64, 65, 67, 73, 77 and 79 of U.S. Pat.

No. 6,976,604 are invalid as anticipated;

iii. that claims 33-49, 58-60, 62-66, 68, 70-72, 74 and 76 of U.S. Pat.

No. 6,976,604 are invalid as obvious; and

iv. that claims 1, 7 and 9 of U.S. Pat. No. 7,185,784 are invalid as obvious; and

b. DENIED with respect to defendant's counterclaims for declaratory judgment that claims 32, 54, 57, 61, 67, 73, 77 and 79 of United States Patent Number 6,976,604 are invalid as obvious; and

c. DENIED as moot with respect to defendant's counterclaims for declaratory judgment

i. that claims 1-31 of U.S. Pat. No. 6,976,604 are invalid as obvious or anticipated or as lacking utility or enablement; and

ii. that claims 33-35, 37-47, 49, 58-60, 62, 63, 66, 68, 70-72, 74 and 76 of U.S. Pat. No. 6,976,604 are invalid as anticipated.

12. Defendant's motion for partial summary judgment of invalidity (dkt. #57) is:

a. GRANTED with respect to defendant's counterclaims for declaratory judgment

i. that claims 31, 56 and 78 of U.S. Pat. No. 6,976,604 are invalid as indefinite; and

ii. that claims 32, 54, 57, 61, 67, 73, 77 and 79 of United States Patent Number 6,976,604 are invalid as obvious; and

b. DENIED with respect to defendant's counterclaims for declaratory judgment

i. that claims 1-79 of U.S. Pat. No. 6,976,604 are invalid as lacking utility or enablement;

ii. that claims 1-13, 15, 16, 19-21, 26-30, 32-49, 58-68, 70-74, 76, 77 and 79 of U.S. Pat. No. 6,976,604 and claims 1, 7 and 9 of U.S. Pat. No. 7,185,784 are invalid as anticipated;

iii. that claims 1-13, 15, 16, 19-21, 26-30, 33-49, 58-60, 62-66, 68, 70-72, 74 and 76 of U.S. Pat. No. 6,976,604 are invalid as obvious.

13. Plaintiff's claims that defendant's Re-Usable Spill-Proof Cups & Lids infringe claims 1-6, 8, 9, 11, 12, 20, 21, 22, 23, 26 and 30 of U.S. Pat. No. 6,976,604 are DISMISSED with prejudice.

14. Defendant's counterclaims for declaratory judgment

a. that claims 1-31, 33-47, 49, 58-60, 62, 63, 66, 68, 70-72, 74 and 76 of U.S. Pat. No. 6,976,604 are invalid as lacking utility or enablement or as anticipated or obvious are DISMISSED without prejudice;

b. that claims 2-6, 8 and 10 of U.S. Pat. No. 7,185,784 are invalid as

anticipated or obvious are DISMISSED without prejudice;

c. that claims 32, 54, 55, 57, 61, 64, 65, 67, 73, 77 and 79 of U.S. Pat. No. 6,976,604 are invalid as lacking utility or enablement or anticipated are DISMISSED with prejudice;

d. that claims 36 and 65 of U.S. Pat. No. 6,976,604 are invalid as obvious are DISMISSED with prejudice;

e. that claims 1, 7 and 9 of U.S. Pat. No. 7,185,784 are invalid as obvious are DISMISSED with prejudice;

f. that plaintiffs engaged in inequitable conduct by failing to disclose prior art and burying prior art during prosecution of U.S. Pat. No. 6,976,604 is DISMISSED with prejudice; and

g. that plaintiffs engaged in inequitable conduct by failing to disclose prior art during prosecution of U.S. Pat. No. 7,185,784 is DISMISSED with prejudice.

Entered this 9th day of September, 2008.

BY THE COURT:

/s/

BARBARA B. CRABB

District Judge